

CLAIMS

1. Intervertebral linking device that is to connect at least two vertebrae to one another, characterised in that it comprises:

- at least one fixed element (2) which is to be secured to a vertebra or to the sacrum,

- at least one mobile linking element (10) suitable for being displaced relative to the or each fixed element (2),

- and also at least one intermediate element (20) permitting the articulation of the or each mobile element relative to the or each fixed element,

- in that the or each intermediate element is received, in use, in an internal volume (16) of the mobile element (10), or of the fixed element, the intermediate element being deformable so that it can be introduced by impaction into that internal volume,

- and in that the fixed element (2), or the mobile element, is received at least partially, in use, in an internal volume (30) of the intermediate element (20), the fixed element (2) or the mobile element having, with the intermediate element, a mutual position of use (Figure 3B) in which the fixed element or the mobile element has three degrees of freedom in rotation but is linked in translation, relative to the intermediate element, and a mutual position of introduction (Figure 3A) in which the fixed element, or the mobile element, has three degrees of freedom in rotation and in translation relative to the intermediate element.

2. Linking device according to claim 1, characterised in that the intermediate element assumes the form of a cup (20).
3. Linking device according to claim 2, characterised in that the internal volume (30) of the intermediate cup (20) is bordered by a truncated spherical surface (28).
4. Linking device according to claim 3, characterised in that the intermediate cup has a truncated spherical external surface (26) which is concentric with the internal surface (28).
5. Linking device according to claim 4, characterised in that the internal surface (28) and the external surface (26) define a wall (22) of the intermediate cup 20.
6. Linking device according to claim 5, characterised in that the thickness (e) of the wall (22) is from 0.5 to 3 mm, preferably from 1 to 1.5 mm.
7. Linking device according to any one of the preceding claims, characterised in that the intermediate element (20) is produced from polyethylene.